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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,775	09/05/2000	Atsushi Tanaka	862.C1998	8807

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

STOCK JR, GORDON J

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,775

Applicant(s)

TANAKA ET AL.

Examiner

Gordon J Stock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: .

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the light-receptive areas of the plurality of sensing means having overlapping portions as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Fig. 12, **L1**; Fig. 14, **1** and **64**. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. Figure 12 is objected to for the following: Figure 12 should show the overlap of the 20Xa and 20Xb sensors. Correction is required.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Fig. 2, **46**; Fig. 4, **69**. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: on line 4 of page 5 the phrase, 'the apparatus comprising,' should read --the method comprising--.

Appropriate correction is required.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. **Claim 6** objected to because of the following informalities: the phrase, "the apparatus comprising," should read --the method comprising--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 3, 6, and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Oikawa et al. (4,320,292)**.

As to **claims 1 and 6**, Oikawa discloses a method and apparatus of coordinate inputting in which light from a designating tool is applied to a prescribed position on a screen to produce a beam spot and coordinates are generated (Fig. 1, col. 3, lines 15-60). As for the apparatus Oikawa discloses the following: a plurality of sensing means provided in the vicinity of at least one coordinate axis for sensing the beam spot (Figs. 6 and 7, **68a, 68b, 68c, 68d, 61, 62, and 63**;

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col. 11, lines 60-67; col. 12, lines 1-12); correction means for correcting results of sensing from each of said plurality of sensing means (col. 12; lines 45-67); concatenation means for concatenating data that has been corrected by said correction means (col. 13, lines 10-57). In addition, since a two dimensional coordinate is derived, it would be obvious to one skilled in the art that the apparatus comprises concatenation means in order to link the x and y coordinate outputted. Output means for outputting coordinate values corresponding to the beam spot based upon the data concatenated (col. 12, lines 35-57); wherein light receptive areas, optical guide channels, of said plurality of sensing means have overlapping portions by superposing the fiber optic sheets and having the sheets intersect at right angles (col. 8, lines 39-45).

As for the method Oikawa discloses the following: a correction step of correcting results of sensing from each of plurality of sensing units provided in the vicinity of at least one coordinate axis for sensing the beam spot (col. 12, lines 45-67; Figs. 6 and 7, **68a**, **68b**, **68c**, **68d**, **61**, **62**, and **63**); a concatenation step of concatenating data that has been corrected (col. 12, lines 10-57). In addition, since a two-dimensional coordinate is derived, it would be obvious to one skilled in the art at the time the invention was made that the method comprises a concatenation means after correction in order to link the corrected x and corrected y coordinates outputted. Outputting values corresponding to the beam spot based upon the data concatenated (col. 12, lines 35-57); wherein light receptive areas, optical guide channels, of said plurality of sensing means have overlapping portions by superposing the fiber optic sheets and having the sheets intersect at right angles (col. 8, lines 39-45).

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As to **claims 3 and 8**, Oikawa discloses everything as above (see **claims 1 and 6**). In addition, Oikawa discloses the sensing means comprise a plurality of optoelectronic transducers arrayed on a straight line (col. 8, lines 55-67; Fig. 6, 7, and 10a).

10. **Claims 2, 4, 5, 7, 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Oikawa et al. (4,320,292)** in view of **Elrod et al. (5,341,155)**.

As to **claims 2 and 7**, Oikawa discloses everything as above (see **claims 1 and 6**).

However, Oikawa is silent concerning the correction means and step based upon stored reference coordinate values. However, Elrod in a method of correction of a position location indicator teaches using a table of calibration data to correct the screen coordinate after normalization and to correct for nonlinearity of the detector by using stored data created through performing a spline function (col. 2, lines 55-67; col. 3, lines 1-50). It would be obvious to one skilled in the art at the time the invention was made to have the correction means and correction step be based on stored reference data in order to correct the screen coordinate after normalization and to correct the screen coordinate from the input data coordinates.

As to **claims 4, 5, 9, and 10**, Oikawa discloses everything as above (see **claims 1 and 6**).

Oikawa is silent concerning the correction step and means correcting results based on inclination or magnification. However, Elrod in a method of correction of a position location indicator teaches using a table of calibration data as well as a spline function data to correct screen coordinates due to nonlinearity of the detector response with the screen (col. 3, lines 1-50; cols. 10-17). It would be obvious to one skilled in the art at the time the invention was made to have the correction means and step to correct the screen coordinate through calibration data and a spline function as taught by Elrod to correct for nonlinearities between the screen and the input

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data. In addition, it would be obvious to one skilled in the art at the time the invention was made that magnification and inclination would be corrected for the calibration table and use of the spline function corrects the screen coordinates in respect to the input data coordinates which are dependent on the size of the detector's pixels and the position of the detector.

11. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Oikawa et al. (4,320,292)** in view of **Kuriyama et al. (5,838,302)**.

As to **claim 11**, Oikawa discloses the steps and the overlapping of light-receptive areas as above (see **claim 6**). Oikawa is silent concerning program code for the method steps. Oikawa does disclose a data processing unit (col. 9, lines 1-3; Fig. 13). Kuriyama discloses in data inputting devices that an electronic circuit for communication include a system program for controlling the operation of the electronic circuit (col. 3, lines 37-47). It would be obvious to one skilled in the art to have program code for the particular method steps in order to have computer control of the electronic circuitry operation.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,502,568 to Ogawa et al.

U.S. Patent 5,572,251 to Ogawa

U.S. Patent 5,627,565 to Morishita et al.

U.S. Patent 6,339,748 to Hiramatsu

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Fax/Telephone Numbers

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and

2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is:

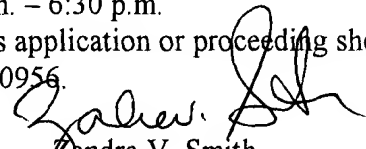
(703) 308-7722

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (703) 305-4787. The examiner can normally be reached on Monday-Friday, 10:00 a.m. – 6:30 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


gs

December 2, 2002


Zandra V. Smith
Patent Examiner
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